Research Project Title:
The role of mesenchymal-derived IGF1 in intestinal homeostasis and the promotion of colitis and colitis-associated cancer
Popular Title:
Autocrine and paracrine actions of growth factors in the homeostasis and pathology of intestine.

Scientific Field:
Life Sciences

Host Institution:
BSRC “Alexander Fleming”, Greece
The aim of this project is to identify the mechanisms underlying fibroblast function, both in intestinal homeostasis and in colitis and colorectal carcinogenesis. It will address the role of certain growth factors produced by fibroblasts aiming to clarify the molecular mechanisms they induce on themselves (autocrine action) and on adjacent epithelial and stem cells.

Our hypothesis is that during acute or chronic intestinal damage, fibroblasts are activated and secrete IGFs, which contribute to intestinal inflammation and carcinogenesis. These specific mediators, having been emerged from our preliminary results, could lead to an altered epithelial function in terms of uncontrolled cell proliferation, promotion of their invasion through epithelial to mesenchymal transition and deregulation of their cellular energetics. Delineation of the molecular mechanisms underlying these processes will lead to better understanding of the mechanisms responsible for disease development, enabling smarter and more targeted therapeutic approaches.
The delineation of the molecular mechanisms underlying biological processes like cellular transformation and metabolism, improves our understanding for disease onset and development, enabling smarter and more targeted therapeutic approaches.
H.F.R.I. funding is very important as it gives a substantial support to young scientists so as to implement their scientific ideas in their country.

The Principal Investigator,
Michalis Sarris

Funding
Amount: **180,000 €**
Duration: **36 months**
Foundation: **H.F.R.I.**
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